

503.43282X00
S.N. 10/743,748



SUBSTITUTE SPECIFICATION

TITLE OF THE INVENTION:

GEARSHIFT OPERATING DEVICE

BACKGROUND OF THE INVENTION:

The present invention relates to a gearshift operating device of the type provided in an automatic manual transmission (hereinafter referred to as an AMT) for automatically performing a gearshift operation of a transmission having a synchro-mechanism or a dog-clutch; and, more particularly, the invention relates to speedup of the gearshift operation and realization of miniaturization and lightweight formation of the device.

Generally, a gearshift operating device which is used to perform the shift selection operation of a normally contact -mesh type transmission has a shift finger which selectively engages to a plurality of shift fork shafts so as to join or dejoin a gear, an actuator for driving the shift finger in the shift direction, a sensor for detecting a displacement of the shift finger in the shift direction, an actuator for driving the shift finger in the selection direction, and a sensor for detecting a displacement of the shift finger in the selection direction. Individual actuators (for example, a motor) for performing these operations in the shift direction and selection direction, respectively, can be electrically controlled and can independently perform the shift operation (joining and dejoining of the gear) and the selection operation (selection of the shift fork shafts), respectively.

On the other hand, in a normally contact-mesh type transmission, a shift pattern, which is known as type H or double H, is generally widespread, and, in such a device, the shift finger draws a trace following the alphabetic character H

DAVID FENSTERMACHER
PRIMARY EXAMINER

5

ENTER
SUB-SPEC

DMF
11/17/06

10

15

20